

EXHIBIT A

Technical Exhibit

TECHNICAL EXHIBIT
IN SUPPORT OF PETITION FOR RECONSIDERATION IN MB DOCKET NO. 87-268
ADVANCED TELEVISION SYSTEMS AND THEIR IMPACT UPON THE
EXISTING TELEVISION BROADCAST SERVICE
TELEVISION STATION KTVU
OAKLAND, CALIFORNIA

Technical Exhibit

This technical exhibit was prepared in support of the *Petition for Reconsideration* for Television Station KTVU. KTVU operates on Channel 56 DTV, Channel 2 Analog at Oakland, California. KTVU has been ordered to Channel 44 for post-transition operation. As KTVU will operate on an entirely new channel, KTVU is required to operate with a new master antenna system mounted atop the *Sutro Tower*, where the current, but soon to be replaced, antenna systems are located. Due to the different channels, antenna systems, and radiation center, there is an antenna pattern mismatch.

Therefore, for station KTVU to minimize its loss of service within its analog Grade B coverage contour, it must operate at 500 kilowatts/512 meters, and such operation will not cause more than 0.5% interference, compared to its present DTV allotment, to any other allotment. Attached as Figure 1 is a coverage map showing the herein proposed post-transition facility does not have a noise-limited contour extending beyond its Grade B analog contour.

Proposed Channel 44 Table of Allotment Parameters

It is requested that the Commission modify the proposed Appendix B DTV Table of Allotment specifications to the following:

Facility ID	State & City		NTSC	DTV								
			Chan	Chan	ERP (kW)	HAAT (m)	Antenna ID	Latitude (DDMMSS)	Longitude (DDMMSS)	Area (sq km)	Population (thousand)	Percent IX Received
35703	CA	Oakland	2	44	500	513	Appendix	374519	1222706	25609	6365	0.0

Contained within the Appendix is the proposed post-transition directional antenna pattern and tabulation.

Certification

KTVU certified on its FCC Form 381, Pre-Election Certification Form¹, that it will operate its post-transition DTV station pursuant to its construction permit.² From Commission's published Table II of 1998 Station NTSC and DTV Replication Information, the initial Channel 56 KTVU DTV replication facility served 6,521,874 persons over an area of 33,985.0 km². These values compare the herein proposed post-transition facility which serves 6,365,000 persons over an area of 25,609 km².

It is furthermore noted that the proposed Channel 44 post-transition allotment does not create any interference to other post-transition stations in excess of 0.5% based upon the 2000 Census. Figure 2 is a tabulation of the allocation study performed for the Channel 44 post-transition facility.

Charles A. Cooper

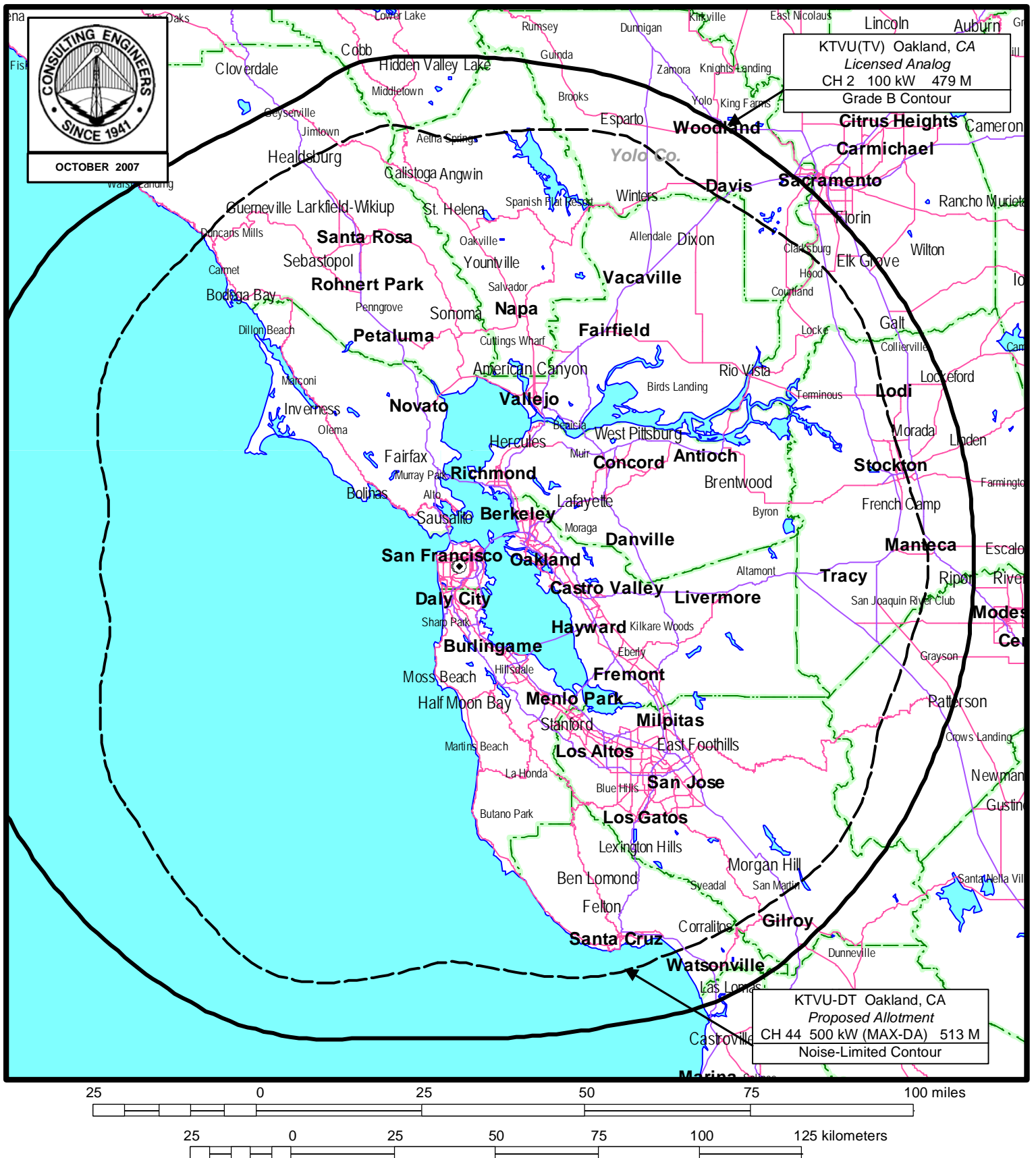
du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 34237
941.329.6000
CHARLES@DLR.COM

October 25, 2007

¹ See FCC File Number: BCERCT-20041103ADO.

² See FCC File Number: BPCDT-20040312AGG.

Figure 1



PREDICTED COVERAGE CONTOURS

TELEVISION STATION KTVU
OAKLAND, CALIFORNIA

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OET-69 Analysis

Percent allowed new interference: 0.500
Percent allowed new interference to Class A: 0.500
Census data selected 2000

Post Transition Data Base Selected
/export/home/cdbs/tvdb.sff_G
TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 10-25-2007 Time: 14:00:09

Record Selected for Analysis

KTVU USERRECORD-01 OAKLAND CA US
Channel 44 ERP 500. kW HAAT 518. m RCAMSL 00544 m
Latitude 037-45-19 Longitude 0122-27-06
Status APP Zone 2 Border
Dir Antenna Make usr Model 00000000006018 Beam tilt N Ref Azimuth 0.

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Facility does not meet maximum height/power limits
Channel 44 ERP = 500.00 HAAT = 518.

Azimuth (Deg)	ERP (kW)	HAAT (m)	41.0 dBu F(50,90) (km)
0.0	171.698	518.6	99.5
45.0	411.324	529.0	108.2
90.0	463.685	532.9	109.6
135.0	411.324	525.7	108.0
180.0	171.698	426.8	92.7
225.0	132.098	535.5	98.5
270.0	20.604	538.0	83.7
315.0	132.098	537.6	98.7

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

SPACING VIOLATION FOUND BETWEEN STATION

KTVU 44 OAKLAND CA USERRECORD01

and station

SHORT TO: KTVU 44 OAKLAND CA BLCDD 20040915AEI
037-45-19 0122-27- 6
Req. separation 223.7 Actual separation 0.0 Short 223.7 km

LANDMOBILE SPACING VIOLATIONS FOUND

NONE

Proposed facility OK to FCC Monitoring Stations
Proposed facility OK toward West Virginia quite zone
Proposed facility OK toward Table Mountain

Proposed facility is beyond the Canadian coordination distance
Proposed facility is beyond the Mexican coordination distance
Proposed station is OK toward AM broadcast stations

Start of Interference Analysis

Channel	Proposed Station Call	City/State	ARN
44	KTVU	OAKLAND CA	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
43	KCSM-TV	SAN MATEO CA	0.0	LIC	BLEDT	-20030822AFZ
44	KRXI-TV	RENO NV	299.3	CP MOD	BMPCDT	-20020724AAU
45	KBCW	SAN FRANCISCO CA	0.0	LIC	BLCDT	-20020709AAQ

Analysis of Interference to Affected Station 1

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
43	KCSM-TV	SAN MATEO CA	BLEDT	-20030822AFZ

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
43	KHSL-TV	CHICO CA	253.1	CP	BDTV	-00000268
43	KGMC	CLOVIS CA	302.0	LIC	BLCDT	-20020507AAJ
44	KTVU	OAKLAND CA	0.0	APP	USERRECORD-01	

Total scenarios = 1

Result key: 1

Scenario 1 Affected station 1

Before Analysis

Results for: 43A CA SAN MATEO BLEDT 20030822AFZ LIC

HAAT 428.0 m, ATV ERP 536.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	6850570	27098.1
not affected by terrain losses	6240615	21829.4
lost to NTSC IX	0	0.0
lost to additional IX by ATV	151291	1007.9
lost to ATV IX only	151291	1007.9
lost to all IX	151291	1007.9

Potential Interfering Stations Included in above Scenario 1

43A CA CHICO	BDTV	00000268	CP
43A CA CLOVIS	BLCDT	20020507AAJ	LIC

After Analysis

Results for: 43A CA SAN MATEO BLEDT 20030822AFZ LIC

HAAT 428.0 m, ATV ERP 536.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	6850570	27098.1
not affected by terrain losses	6240615	21829.4
lost to NTSC IX	0	0.0
lost to additional IX by ATV	181875	1108.3
lost to ATV IX only	181875	1108.3
lost to all IX	181875	1108.3

Potential Interfering Stations Included in above Scenario 1

43A CA CHICO	BDTV	00000268	CP
43A CA CLOVIS	BLCDT	20020507AAJ	LIC
44A CA OAKLAND	USERRECORD01		APP

The following station failed the de minimis interference criteria.

44D CA OAKLAND USERRECORD01
ERP 500.00 kW HAAT 518.0 m RCAMSL 544.0 m
Antenna usr 00000000006018

Due to interference to the following station and scenario: 1
43D CA SAN MATEO BLEDT 20030822AFZ
ERP 536.00 kW HAAT 428.0 m RCAMSL 459.0 m
Antenna CDB 00000000044617

Percent Service lost without proposal: 0.0 to BLEDT 20030822AFZ
Percent Service lost with proposal: 0.5 to BLEDT 20030822AFZ

Worst case new IX 0.5023% Scenario 1

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Analysis of Interference to Affected Station 2

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
44	KRXI-TV	RENO NV	BMPCDT	-20020724AAU

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
43	KHSL-TV	CHICO CA	158.0	CP	BDTV	-00000268
44	KTVU	OAKLAND CA	299.3	APP	USERRECORD-01	

Total scenarios = 1

Result key: 2
Scenario 1 Affected station 2
Before Analysis

Results for: 44A NV RENO BMPCDT 20020724AAU CP
HAAT 836.0 m, ATV ERP 1000.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	599298	34711.8
not affected by terrain losses	403590	19358.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0

Potential Interfering Stations Included in above Scenario 1

After Analysis

Results for: 44A NV RENO BMPCDT 20020724AAU CP
HAAT 836.0 m, ATV ERP 1000.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	599298	34711.8
not affected by terrain losses	403590	19358.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	163	56.0
lost to ATV IX only	163	56.0
lost to all IX	163	56.0

Potential Interfering Stations Included in above Scenario 1

44A CA OAKLAND	USERRECORD01	APP
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Percent new IX = 0.0404%

Worst case new IX 0.0404% Scenario 1

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Analysis of Interference to Affected Station 3

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
45	KBCW	SAN FRANCISCO CA	BLCDT	-20020709AAQ

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
45	KUVI-TV	BAKERSFIELD CA	419.5	LIC	BLCDT	-20020906ABI
46	KQCA	STOCKTON CA	101.5	CP MOD	BMPCDT	-20020626AAA
44	KTVU	OAKLAND CA	0.0	APP	USERRECORD-01	

Total scenarios = 1

Result key: 3
Scenario 1 Affected station 3
Before Analysis

Results for: 45A CA SAN FRANCISCO BLC DT 20020709AAQ LIC
HAAT 446.0 m, ATV ERP 400.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	6775478	26263.4
not affected by terrain losses	6182743	21054.9
lost to NTSC IX	0	0.0
lost to additional IX by ATV	176924	1301.1
lost to ATV IX only	176924	1301.1
lost to all IX	176924	1301.1

Potential Interfering Stations Included in above Scenario 1

46A CA STOCKTON BMPCDT 20020626AAA CP

After Analysis

Results for: 45A CA SAN FRANCISCO BLC DT 20020709AAQ LIC
HAAT 446.0 m, ATV ERP 400.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	6775478	26263.4
not affected by terrain losses	6182743	21054.9
lost to NTSC IX	0	0.0
lost to additional IX by ATV	201093	1389.5
lost to ATV IX only	201093	1389.5
lost to all IX	201093	1389.5

Potential Interfering Stations Included in above Scenario 1

46A CA STOCKTON BMPCDT 20020626AAA CP
44A CA OAKLAND USERRECORD01 APP

Percent new IX = 0.4024%

Worst case new IX 0.4024% Scenario 1

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Analysis of Interference to Affected Station 4

Analysis of current record

Channel	Call	City/State	Application Ref. No.
44	KTVU	OAKLAND CA	USERRECORD-01

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
43	KCSM-TV	SAN MATEO CA	0.0	LIC	BLEDT -20030822AFZ
44	KRXI-TV	RENO NV	299.3	CP MOD	BMPCDT -20020724AAU
45	KBCW	SAN FRANCISCO CA	0.0	LIC	BLC DT -20020709AAQ

Total scenarios = 1

Result key: 4
Scenario 1 Affected station 4
Before Analysis

Results for: 44A CA OAKLAND USERRECORD01 APP
HAAT 518.0 m, ATV ERP 500.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	7213631	31363.5
not affected by terrain losses	6365475	25608.9
lost to NTSC IX	0	0.0
lost to additional IX by ATV	8	8.0
lost to ATV IX only	8	8.0
lost to all IX	8	8.0

Potential Interfering Stations Included in above Scenario 1

44A NV RENO BMPCDT 20020724AAU CP

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APPENDIX

PROPOSED CHANNEL 44 POST-TRANSITION DIRECTIONAL ANTENNA PATTERN AND TABULATION



Proposal Number

EM-070924-1

Date

24-Sep-07

Call Letters

KTVU-DT

Channel

44

Location

San Francisco, CA

Customer

Antenna Type

TUM-C5SP-14/60H-2-T-R

AZIMUTH PATTERN

Gain

2.00

(3.01 dB)

Calculated / Measured

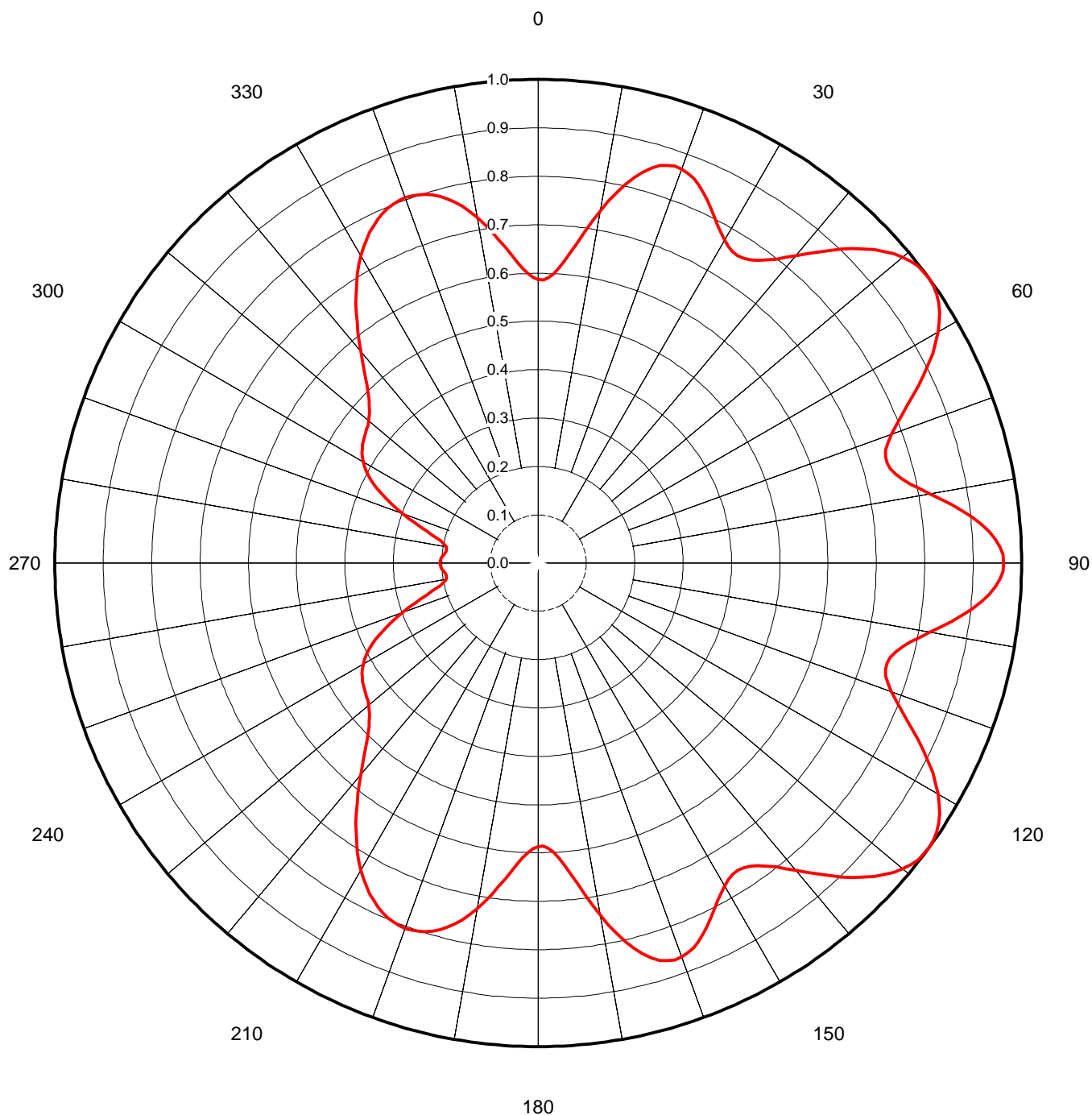
Calculated

Frequency

653.00 MHz

Drawing #

TUM-C5SP-6530





Proposal Number

EM-070924-1

Date

24-Sep-07

Call Letters

KTVU-DT

Channel

44

Location

San Francisco, CA

Customer

Antenna Type

TUM-C5SP-14/60H-2-T-R**TABULATION OF AZIMUTH PATTERN**Azimuth Pattern Drawing #: **TUM-C5SP-6530**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.586	45	0.919	90	0.963	135	0.919	180	0.586	225	0.497	270	0.203	315	0.497
1	0.586	46	0.935	91	0.961	136	0.902	181	0.591	226	0.487	271	0.203	316	0.510
2	0.590	47	0.950	92	0.956	137	0.884	182	0.599	227	0.477	272	0.202	317	0.523
3	0.598	48	0.963	93	0.947	138	0.866	183	0.610	228	0.469	273	0.200	318	0.538
4	0.611	49	0.974	94	0.935	139	0.848	184	0.624	229	0.463	274	0.198	319	0.554
5	0.627	50	0.984	95	0.920	140	0.830	185	0.640	230	0.457	275	0.196	320	0.571
6	0.646	51	0.991	96	0.903	141	0.813	186	0.657	231	0.453	276	0.194	321	0.588
7	0.668	52	0.996	97	0.884	142	0.798	187	0.674	232	0.450	277	0.192	322	0.605
8	0.691	53	0.999	98	0.864	143	0.784	188	0.692	233	0.447	278	0.191	323	0.623
9	0.715	54	1.000	99	0.844	144	0.773	189	0.709	234	0.444	279	0.192	324	0.640
10	0.739	55	0.998	100	0.823	145	0.765	190	0.725	235	0.441	280	0.193	325	0.658
11	0.762	56	0.994	101	0.804	146	0.760	191	0.740	236	0.438	281	0.196	326	0.674
12	0.784	57	0.988	102	0.787	147	0.758	192	0.753	237	0.434	282	0.201	327	0.690
13	0.804	58	0.979	103	0.773	148	0.759	193	0.765	238	0.430	283	0.208	328	0.706
14	0.822	59	0.968	104	0.761	149	0.764	194	0.776	239	0.425	284	0.217	329	0.720
15	0.837	60	0.955	105	0.754	150	0.771	195	0.785	240	0.418	285	0.228	330	0.733
16	0.850	61	0.941	106	0.750	151	0.780	196	0.792	241	0.411	286	0.240	331	0.746
17	0.859	62	0.924	107	0.751	152	0.791	197	0.797	242	0.402	287	0.253	332	0.757
18	0.865	63	0.906	108	0.756	153	0.803	198	0.801	243	0.392	288	0.267	333	0.768
19	0.868	64	0.887	109	0.765	154	0.816	199	0.803	244	0.381	289	0.282	334	0.777
20	0.867	65	0.868	110	0.777	155	0.828	200	0.804	245	0.369	290	0.297	335	0.784
21	0.864	66	0.848	111	0.792	156	0.839	201	0.803	246	0.356	291	0.313	336	0.791
22	0.858	67	0.828	112	0.809	157	0.850	202	0.800	247	0.342	292	0.328	337	0.796
23	0.850	68	0.809	113	0.828	158	0.858	203	0.796	248	0.328	293	0.342	338	0.800
24	0.839	69	0.792	114	0.848	159	0.864	204	0.791	249	0.313	294	0.356	339	0.803
25	0.828	70	0.777	115	0.868	160	0.867	205	0.784	250	0.297	295	0.369	340	0.804
26	0.816	71	0.765	116	0.887	161	0.868	206	0.777	251	0.282	296	0.381	341	0.803
27	0.803	72	0.756	117	0.906	162	0.865	207	0.768	252	0.267	297	0.392	342	0.801
28	0.791	73	0.751	118	0.924	163	0.859	208	0.757	253	0.253	298	0.402	343	0.797
29	0.780	74	0.750	119	0.941	164	0.850	209	0.746	254	0.240	299	0.411	344	0.792
30	0.771	75	0.754	120	0.955	165	0.837	210	0.733	255	0.228	300	0.418	345	0.785
31	0.764	76	0.761	121	0.968	166	0.822	211	0.720	256	0.217	301	0.425	346	0.776
32	0.759	77	0.773	122	0.979	167	0.804	212	0.706	257	0.208	302	0.430	347	0.765
33	0.758	78	0.787	123	0.988	168	0.784	213	0.690	258	0.201	303	0.434	348	0.753
34	0.760	79	0.804	124	0.994	169	0.762	214	0.674	259	0.196	304	0.438	349	0.740
35	0.765	80	0.823	125	0.998	170	0.739	215	0.658	260	0.193	305	0.441	350	0.725
36	0.773	81	0.844	126	1.000	171	0.715	216	0.640	261	0.192	306	0.444	351	0.709
37	0.784	82	0.864	127	0.999	172	0.691	217	0.623	262	0.191	307	0.447	352	0.692
38	0.798	83	0.884	128	0.996	173	0.668	218	0.605	263	0.192	308	0.450	353	0.674
39	0.813	84	0.903	129	0.991	174	0.646	219	0.588	264	0.194	309	0.453	354	0.657
40	0.830	85	0.920	130	0.984	175	0.627	220	0.571	265	0.196	310	0.457	355	0.640
41	0.848	86	0.935	131	0.974	176	0.611	221	0.554	266	0.198	311	0.463	356	0.624
42	0.866	87	0.947	132	0.963	177	0.598	222	0.538	267	0.200	312	0.469	357	0.610
43	0.884	88	0.956	133	0.950	178	0.590	223	0.523	268	0.202	313	0.477	358	0.599
44	0.902	89	0.961	134	0.935	179	0.586	224	0.510	269	0.203	314	0.487	359	0.591